UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,925	09/10/2003	Basil Karanikos		3129

7590 07/24/2009

Wolf Greenfield
600 ATlantic Avenue
Boston, MA 02110

EXAMINER	
DRODGE, JOSEPH W	
ART UNIT	PAPER NUMBER
1797	

MAIL DATE	DELIVERY MODE
07/24/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BASIL KARANIKOS and FREDRICK ROSSI

Appeal 2009-003780
Application 10/658,925
Technology Center 1700

Decided[1]: July 24, 2009

Before CHUNG K. PAK, KAREN M. HASTINGS, and
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

PAK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1 through 44, all of the pending claims in the above-

---

[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

identified application. We have jurisdiction under 35 U.S.C. § 6(b).[2]

We AFFIRM-IN-PART.

STATEMENT OF THE CASE

The subject matter on appeal "relates generally to single serve beverage brewing systems, and is concerned in particular with an improved filter cartridge for use in such systems" (Spec. 1). Details of the appealed subject matter are recited in representative claims 1, 12, and 44 reproduced below:

1. A beverage filter cartridge comprising:

a container having a container bottom and a container side wall extending upwardly from said container bottom to a top opening;

a filter element having a filter bottom and a filter side wall extending upwardly from said filter bottom, said filter element being received in said container and directly joined at a peripheral juncture to an interior of said container side wall, the interior of said container thus being subdivided by said filter element into a first chamber accessible via said top opening, and a second chamber, wherein pleats or flutes in said filter side wall form exit channels leading to said second chamber, and said exit channels are located between said container side wall and said filter side wall;

a beverage medium received in said first chamber via said top opening; and

a cover closing said top opening, said cover being piercable to admit liquid into said first chamber for contact with said beverage medium to produce a beverage, said filter element being permeable to accommodate the flow therethrough of said beverage for delivery via said exit channels to said second chamber, and said container bottom being piercable to accommodate an outflow of said beverage from said cartridge.

12. A beverage filter cartridge comprising:

---

[2] An oral hearing was held on June 9, 2009.

a container having a side wall and a bottom;

a filter element having a side wall and a bottom, said filter element being arranged to subdivide the interior of said container into a first chamber inside said filter element and a second chamber located outside said filter element, said filter element being directly joined to an interior of the container side wall at a peripheral juncture, and said filter sidewall having corrugations, having at least a portion that is permeable, and being arranged so that at least a portion of said filter side wall is spaced inwardly from and out of contact with said container side wall; and

a cover enclosing at least a portion of the first chamber.

44. A beverage filter cartridge comprising:

a container having a side wall and a bottom;

a filter element having a side wall and a bottom, said filter element being arranged to subdivide the interior of said container into a first chamber inside said filter element and a second chamber located outside said filter element, said filter element being directly joined to an interior of the container side wall at a peripheral juncture, and said filter sidewall having corrugations and being arranged so that at least a portion of said filter side wall is spaced inwardly from and out of contact with said container side wall; and

a cover enclosing at least a portion of the first chamber.

The Examiner relied upon the following prior art references as evidence of unpatentability (Ans. 3-4):

Michielsen	US 3,389,650	Jun. 25, 1968
Daswick	US 3,971,305	Jul. 27, 1976
Sylvan	US 5,325,765	Jul. 5, 1994
Spiteri	US 2002/0185010 A1	Dec. 12, 2002

The Examiner rejected the claims on appeal as follows (Ans. 4-8):

1. Claims 1 through 4, 7, 12 through 14, 17, and 22 through 44 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Sylvan and Spiteri;

2. Claims 3, 5, 6, 9 through 11, 15, 16, 19 through 21, and 32 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Sylvan, Spiteri, and Daswick; and

3. Claims 8 and 18 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Sylvan, Spiteri, and Michielsen.

Appellants traverse the Examiner's § 103(a) rejections, arguing that one of ordinary skill in the art would not have had any reason to employ the fluted or pleated filter taught by Spiteri as the filter of Sylvan's beverage filter cartridge (App. Br. 6-22 and Reply Br. 1-4). In support of their position, Appellants refer to two Rule 132 Declarations in Appendix B to the Appeal Brief, but focus primarily on the Rule 132 Declaration executed by Karl Winkler on November 21, 2007 (*id*).

Appellants also separately argue the angle of the side wall of the filter recited in claims 5, 6, 15, and 16, the permeability rates of the lower and upper regions of the filter recited in claims 9 and 19 and the increased thicknesses of the lower region of the filter recited in claims 10, 11, 20, and 21 (App. Br. 22-23).

ISSUES AND CONCLUSIONS

Have Appellants identified reversible error in the Examiner's determination that one of ordinary skill in the art would have been led to employ the fluted or pleated filter taught by Spiteri as the filter of Sylvan's beverage filter cartridge, with a reasonable expectation of successfully

providing the filtering function within the meaning of 35 U.S.C. § 103(a)? On this record, we answer this question in the negative.

Have Appellants demonstrated that the Rule 132 Declarations relied upon are sufficient to rebut any inference of obviousness established by the Examiner? On this record, we answer this question in the negative.

Have Appellants identified reversible error in the Examiner's determination that one of ordinary skill in the art would have been led to employ a fan shape or truncated cone shape filter having the side wall angles recited in claims 5, 6, 15, and 16 within the meaning of 35 U.S.C. § 103(a)? On this record, we answer this question in the negative.

Have Appellants identified reversible error in the Examiner's determination that one of ordinary skill in the art would have been led to employ a filter having lower and upper regions having the different permeability rates recited in claims 9 and 19 within the meaning of 35 U.S.C. § 103(a)? On this record, we answer this question in the negative.

Have Appellants identified reversible error in the Examiner's determination that one of ordinary skill in the art would have been led to employ a filter having the lower and upper regions having different thicknesses imparting different permeability rates as recited in claims 10, 11, 20, and 21 within the meaning of 35 U.S.C. § 103(a)? On this record, we answer this question in the affirmative.

RELEVANT FINDINGS OF FACT

1. Appellants do not dispute the Examiner's finding at page 5 of the Answer that:

> Sylvan discloses a coffee filter including a filter cartridge comprising a brew basket container with bottom and side walls in portion 64 extending upwards to a closing cover 62 having top opening 72 (column 4, lines 16-27). The cartridge houses filter element 16 with bottom 56 and sloping side walls 50 and 52 (column 3, lines 54-60), the filter element being *joined directly at a peripheral junction 24 with the adjacent interior wall surface of the cartridge housing (see column 3, lines 48-62 and figure 4).* The filter element is of synthetic paper fibers such as of polypropylene. The interior of the filter cartridge is thus divided into a first chamber housing beverage 22 and second chamber 42 receiving outflow from the filter (column 3, line 66-column 4, line 3). [(*Compare* Ans. 5, *with* App. Br. 6-22 and Reply Br. 1-4 and *see also* col. 3, l. 48 to col. 4, l. 26.)]

2. Sylvan teaches the disadvantage of sagging and conforming the filter to the interior wall of a receptacle at column 1, lines 30-38 as shown below:

> In one construction a filter is provided in a sealed receptacle but included intermediate the receptacle . . . . When the filter is wetted it sags and conforms with the support member which has a hole in it to release the filtered beverage but otherwise blocks the output of the filter. Such a filter design used in an application where water is injected under pressure would provide low flow rates.

3. Sylvan teaches (col. 3, ll. 4-26) (emphasis added) that:

> The filter element may be made of a lightweight, two-phase heat sealable paper of cellulosic and synthetic fibers. The synthetic fibers may be PVC or polypropylene so that they are compatible with the material of the base and are therefore easily sealed to the base using heat, ultrasonic energy or microwave energy. *In addition, the material of the filter is such that the filter is totally self-supporting. Even when it is wetted, it will not collapse or sag against the inner walls of the base.* The filter can have the shape of a cone, a truncated cone, or a triangular prism which *fans out* and blends into a circular base. The filter is smaller than and non-congruent with the base so

> that it diverges and divides the base into two sealed chambers. . . . This enlarged volume of the second chamber enhances the filter flow since *the filter is not in contact or in any way blocked by the walls of the base,* and water can flow through the entire filter surface.

4. Sylvan desires a filtering system useful for providing a high flow rate (col. 1, ll. 43-45).

5. Sylvan is not limited to employing a filter having a generally truncated cone shape or a truncated triangular prism (identical or similar to a fan shape) in its coffee filter cartridge; it teaches that its filter can be in any predetermined shape useful for its coffee filter cartridge (col. 2, ll. 8-16 and col. 3, ll. 13-15).

6. Sylvan does not specifically mention that the filter (the claimed filter element) employed has a side wall having flutes, pleats, or corrugations as required by claims 1, 12 and 44 (Ans. 5).

7. Appellants do not dispute the Examiner's finding that Spiteri teaches a fan-shaped filter comprising a side wall having the pleats or flutes (corresponding to the claimed pleats, flutes or corrugations on the side walls of filters) recited in claims 1, 12, and 14. (*Compare* Ans. 5, *with* App. Br. 6-22 and Reply Br. 1-4).

8. Spiteri teaches (p. 1, paras. 0005 and 0007) that:

> Fan shaped filters of the type discussed here serve for making filtered drinks, specially coffee drinks, in a simple way. The self support filter is intended to be used only once and is adapted to be stood on the inside of a vessel such as a coffee basket . . . .
>
> Said filter supporting members conventionally consist of folds, formed and contrived on the paper itself, arranged at an angle from the vertical axis, and along the edges of the walls.

9. Spiteri teaches (p. 1, paras. 0009 and 0011) (emphasis added) that:

> One of the objects on which the present invention is based is to design a foldable filter of the aforementioned type, so that while maintaining its flexibility yet the rigid properties added by means of folding and pleating the paper, can withstand the sagging moment of said paper when wet. To achieve this object, the sagging resistant filter according to the invention, includes at least a minimum of four folds acting as supporting members, and arranged in pairs at opposite sides of the filter.
>
> . . . .
>
> The self supporting filter designed in this way requires only *a small amount of additional material added* to a conventional fan shaped paper filter, to compensate for the pleats and folds, and yet to maintain the same linear and volumetric dimensions when unfolded into said vessel receptacle of said coffee maker.

10. Appellants do not dispute that the use of the fluted or pleated filter taught by Spiteri in the Sylvan cartridge increases an effective filtering area (App. Br. 20).

11. Spiteri teaches a fan shaped filter having folds and pleats that is geometrically configured in size dimensions so that it can be placed within the interior of a conventional coffee brewer, such as an electric drip brewer (p. 2, para. 0021).

12. Spiteri is not limited to employing its fluted or pleated filter to an electric drip brewer; it teaches employing its fluted or pleated filter to any conventional coffee brewers which embraces those conventional coffee brewers taught by Sylvan (*id*).

13. Appellants refer to two Rule 132 Declarations executed by Karl Winkler on November 21, 2007 and June 29, 2007, respectively in APPENDIX B of the Appeal Brief.

14. According to the Rule 132 Declarations, Karl Winkler was hired to assess the Examiner's § 103 rejections.

15. The Declaration executed on June 29, 2007 focuses on the § 103(a) rejections based on Sylvan and Frise (US Patent No. 3,971,305), which are no longer maintained by the Examiner in the Answer.

16. The Declaration executed on November 21, 2007 is directed to the Examiner's § 103 rejections set forth in the Answer.

17. Both Declarations have not established that Karl Winkler has any legal expertise in assessing rejections based on 35 U.S.C. § 103(a).

18. The opinion in paragraph 9 of the Declaration executed on November 21, 2007 does not take into account the fact that Spiteri teaches that its filters can be used with any conventional coffee brewers which generically include those conventional coffee brewers taught by Sylvan.

22. The opinions in paragraphs 6, 7 and 8 of the Declaration executed on November 21, 2007 do not take into account the fact that Sylvan requires any filter employed, such as the filter suggested by Spiteri, be made with a material (such as a lightweight, two-phase heat sealable paper of cellulosic and synthetic fibers) that would resist any sagging, when wet, in its particular coffee brewer means.

23. The opinions in paragraphs 6, 7 and 8 of the Declaration executed on November 21, 2007 do not take into account the fact that Sylvan requires that any filter employed, including that taught by Spiteri, be not in contact or

in any way blocked by the walls of a base (the interior wall of its filter cartridge).

24. Daswick teaches that a filter side wall angle can be identical to the interior chamber wall angle of a base without touching the interior chamber wall (col. 3, l. 63 to col. 4, l. 8 and Fig. 5).

25. Appellants do not dispute the Examiner's determination that it would have been obvious to one of ordinary skill in the art to employ the corrugation features recited in claims 8 and 18, as taught by Michielsen, in the fluted or pleated fan or truncated cone-shaped filter suggested by Sylvan and Spiteri within the meaning of 35 U.S.C. § 103(a). (*Compare* Ans. 8 *with* App. Br. 23-24.)

PRINCIPLES OF LAW

Under 35 U.S.C. § 103, the factual inquiry into obviousness requires a determination of: (1) the scope and content of the prior art; (2) the differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) secondary considerations, if any. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

As stated in *KSR Int'l Co., v. Teleflex Inc.*, 550 U.S. 398, 417-18 (2007):

> [A]nalysis [of whether the subject matter of a claim would have been prima facie obvious] need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

For instance, "when a patent 'simply arranges old elements with each performing the same function it had been known to perform' and yields no

more than one would expect from such an arrangement, the combination is obvious." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. at 417 (quoting *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976)).

The analysis should take into account the amount of reconstruction and redesign required of the prior art devices as well as changes in the basic principles of operation required to arrive at the claimed structure in finding whether there is a suggestion in the prior art to make the combination. *In re Ratti*, 270 F.2d 810, 813 (CCPA 1959); s*ee also KSR*, 550 U.S. at 417 (stating that "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill"). This is because the test for obviousness is not whether the features of one reference may be bodily incorporated into another reference. *In re Bozek*, 416 F.2d 1385, 1390 (CCPA 1969). Rather, it is whether the combined teachings of the prior art references as a whole would have rendered the claimed subject matter obvious. *Id.*

In analyzing obviousness, "it is proper to take into account not only specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom . . . ." *In re Hoeschele*, 406 F.2d 1403, 1406-407 (CCPA1969). "[A] reference disclosure must be evaluated for all that it fairly [teaches] and not only for what is indicated as preferred" in determining the propriety of obviousness. *Bozek*, 416 F.2d at 1390.

> [W]here the prior art gives reason or motivation to make the claimed [invention] . . . the burden (and opportunity) then falls on an applicant to rebut that *prima facie* case.

> Such rebuttal or argument can consist of . . . any other argument or presentation of evidence that is pertinent.

In re Dillon, 919 F.2d 688, 692-93 (Fed. Cir. 1990) (*en banc*). A mere pleading unsupported by proof or showing of facts is inadequate. *In re Borkowski*, 505 F.2d 713, 718 (CCPA 1974).

ANALYSIS

I. Claims 1 through 4, 7, 12 through 14, 17, and 22 through 44 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Sylvan and Spiteri.

Appellants do not dispute the Examiner's finding that Sylvan teaches a coffee filter cartridge identical to the beverage filter cartridge recited in claims 1, 12, and 44, except for the claimed pleats, flutes or corrugations on the side wall of the filter employed.

Sylvan specifically mentions employing a filter having a generally truncated cone shape or a truncated triangular prism (identical or similar to a fan shape) in its coffee filter cartridge. However, it is not limited to a filter having such a shape. It teaches that its filter can be in any predetermined shape useful for its coffee filter cartridge.

Spiteri teaches a filter having a predetermined shape, i.e., a fan-shaped filter comprising a side wall having folds and pleats (corresponding to the claimed pleats, flutes or corrugations on the side walls of filters) for a conventional coffee brewer. Spiteri teaches adding folds and pleats to the side wall of a fan-shaped filter useful for any conventional coffee brewers, inclusive of those taught by Sylvan. The pleated fan-shaped filter, according to Spiteri, requires adding an additional amount of the filter material (area)

to a conventional fan shape filter. In other words, adding folds and pleats to the conventional fan-shaped filter provides a more effective filtering area (thus allowing a higher liquid flow rate as required by Sylvan). Appellants do not dispute that pleats and folds in a conventional filter enlarges or increases an effective filtering area.

Spiteri also teaches that the filter can be geometrically configured in size dimensions appropriate for the interior of conventional coffee brewers. Implicit in this teaching of Spiteri is that one of ordinary skill in the art can geometrically configure its filter to a desired size dimension appropriate for a given filter cartridge, including the one required by Sylvan. Sylvan teaches that for its particular coffee filter cartridge, the filter employed must be configured to maintain a substantial space between the filter and the interior wall of the cartridge (even when the filter is wetted) for the purpose of enhancing a filtering rate.

Further, Spiteri teaches that rigid properties can be added to a paper filter by means of folding and pleating the paper filter and when at least minimum of four folds are added, they act as a supporting member. More importantly, however, Sylvan teaches that for its particular coffee brewer system, using an appropriate material in constructing its filter is important in imparting a desired rigidity. Specifically, Sylvan teaches using a material, such as a light-weight two-phase heat sealable paper of cellulosic and synthetic fibers, to make a totally self supporting filter which will not collapse or sag against the inner walls of the cartridge, when wet.

Given the above teachings, we determine that one of ordinary skill in the art would have been led to employ the filter taught by Spiteri in Sylvan's

coffee filter cartridge in the manner suggested by Sylvan, with a reasonable expectation of successfully providing a desired high filtering function.

Appellants refer to two Rule 132 Declarations executed by Karl Winkler on November 21, 2007 and June 29, 2007, respectively in APPENDIX B of the Appeal Brief. According to the Declarations, they are directed to the opinions of Karl Winkler assessing "a rejection of patent claims made in the above-identified application." In the argument section of the Appeal Brief, Appellants primarily focus on the Declaration executed on November 21, 2007, the only one directed to the actual rejections set forth in the Answer.

However, the Declarations are flawed[3] since they do not take into account all the relevant teachings in Sylvan and Spiteri. Initially, as correctly found by the Examiner, contrary to paragraph 9 of the Declaration executed on November 21, 2007, Spiteri is not limited to using its filter with drip brewers only. Spiteri teaches that its filters can be used with any conventional coffee brewers which generically include those conventional coffee brewers taught by Sylvan.

Secondly, as correctly pointed out by the Examiner, Spiteri teaches that rigid properties can be added to a paper filter by means of folding and pleating the paper filter. More importantly, however, Sylvan requires that the filter employed, such as the filter suggested by Spiteri, be made with a material (such as a light-weight, two-phase heat sealable paper of cellulosic

[3] In any event, the Declarations have not established that Mr. Karl Winkler has any expertise in patent prosecution, much less patent law, to properly assess any obviousness rejections set forth by the Examiner. Mr. Winkler, for example, has no legal expertise to properly interpret the claim scope and properly make an ultimate legal conclusion of obviousness.

and synthetic fibers) that would resist any sagging, when wet, in its particular coffee brewer means. Sylvan also requires that any filter employed, including that taught by Spiteri, must be in a proper size dimension, even when under wet conditions, such that it is not in contact or in any way blocked by the interior wall of its filter cartridge. It follows that contrary to the opinions at paragraphs 6, 7 and 8 of the Declaration executed on November 21, 2007, one of ordinary skill in the art would have been led to employ Spiteri's appropriately constructed filter in the manner required by Sylvan as the filter of Sylvan's coffee filter cartridge, with a reasonable expectation of successfully minimizing any sagging of Spiteri's filter in Sylvan's coffee brewer system and enhancing a filtering flow rate. The opinions at paragraphs 6, 7, and 8 of the Declaration simply fail to consider the prior art references as a whole in assessing the propriety of the Examiner's § 103(a) rejections.

Thirdly, the Declarations and Appellants' arguments in the Appeal Brief and Reply Brief do not question the Examiner's finding directed to increasing a filter surface area. Since Appellants do not dispute that the addition of flutes or pleats in a conventional filter is known to increase the effective filtering area, Sylvan's desires for a high flow rate would have led one of ordinary skill in the art to employ flutes or pleats in the side wall of the filter used in Sylvan's coffee filter cartridge. The Declarations do not provide any evidence to support Appellants' assertion at pages 20 and 21 of the Appeal Brief that a high flow rate (high filtering rate) is not desirable in Sylvan's coffee brewer contrary to Sylvan's teaching.

Thus, based on this record, including due consideration of Appellants' arguments and evidence, we determine that the preponderance of evidence

weighs most heavily in favor of obviousness regarding the subject matter of claims 1 through 4, 7, 12 through 14, 17, and 22 through 44 within the meaning of 35 U.S.C. § 103(a).

II. Claims 3, 5, 6, 9 through 11, 15, 16, 19 through 21, and 32 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Sylvan, Spiteri, and Daswick.

Sylvan and Spiteri would have suggested a fluted or pleated fan or truncated cone-shaped filter having an appropriate side wall angle as indicated *supra*. It can also be inferred from Sylvan's disclosure of a filter having a predetermined shape not touching the interior wall of a base (coffee filter cartridge) that the side wall of the fluted or pleated fan or truncated cone-shaped filter can be at any angle, inclusive of the angle recited in claim 5, 6, 15, and 16, so long as the filter side wall does not touch the interior wall of the filter cartridge. In addition, Daswick teaches that a filter side wall angle can be identical to the interior chamber wall angle of a base without touching the interior chamber wall (col. 3, l. 63 to col. 4, l. 8 and Fig. 5).

Thus, on this record, we determine that one of ordinary skill in the art would have been led to employ a fluted or pleated fan or truncated cone-shaped filter having optimum side wall angles, including those recited in claims 5, 6, 15, and 16, with a reasonable expectation of successfully producing a desired flow rate within the meaning of 35 U.S.C. § 103(a).

As to the permeability rates of lower and upper regions of the filter recited in claims 9 and 19, the fluted or pleated fan or truncated cone-shaped filter suggested by Sylvan and Spiteri would necessarily have the claimed

permeability rates since an upper region of the fan or truncated cone-shaped filter has more filtering area than a lower region thereof.

As to separately argued claims 10, 11, 20, and 21, they stand on different footing. As correctly argued by Appellants at page 23 of the Appeal Brief, none of the applied references teaches increasing the thickness of a lower region of the filter to decrease its permeability. Daswick's element 28 relied on by the Examiner to show such claimed feature is a screen which is used to retain coffee grounds within a lower region of the filter. However, nowhere does Daswick teach that the screen increases the thickness of the lower region of the filter to decrease the permeability thereof. Nor has the Examiner sufficiently explained why one of ordinary skill in the art would have reasonably expected that Daswick's screen component 29 would provide the type of the increased thickness that would reduce the permeability of the lower region. Accordingly, Appellants have identified reversible error in the Examiner's determination that one of ordinary skill in the art, armed with the knowledge of the combined teachings of Sylvan, Spiteri and Daswick, would have been led to employ a filter having the lower and upper regions having different thicknesses imparting different permeability rates as recited in claims 10, 11, 20, and 21 within the meaning of 35 U.S.C. § 103(a).

III. Claims 8 and 18 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Sylvan, Spiteri, and Michielsen.

Appellants do not dispute the Examiner's determination that it would have been obvious to one of ordinary skill in the art to employ the claimed corrugation features taught by Michielsen in the fluted or pleated fan or truncated cone-shaped filter suggested by Sylvan and Spiteri within the

meaning of 35 U.S.C. § 103(a). Rather, Appellants rely on the same arguments raised in connection with the Examiner's rejection of claims 1 through 4, 7, 12 through 14, 17, and 22 through 44 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Sylvan and Spiteri. Thus, for the findings of fact and conclusions set forth above, we determine that Appellants have not identified any reversible error in the Examiner's rejection of claims 8 and 18 under 35 U.S.C. § 103(a).

DECISION

In view of the foregoing:

1. The rejection of Claims 1 through 4, 7, 12 through 14, 17, and 22 through 44 under 35 U.S.C. § 103 as unpatentable over the combined disclosures of Sylvan and Spiteri is affirmed;

2. The rejection of claims 3, 5, 6, 9, 15, 16, 19, and 32 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Sylvan, Spiteri, and Daswick is affirmed;

3. The rejection of claims 10, 11, 20, and 21 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Sylvan, Spiteri, and Daswick is reversed; and

4. The rejection of claims 8 and 18 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Sylvan, Spiteri, and Michielsen is affirmed.

Accordingly, the decision of the Examiner is affirmed-in-part.

AFFIRMED-IN-PART

ssl

WOLF GREENFIELD
600 ATLANTIC AVENUE
BOSTON, MA 02110